**Unit 6 Map - DNA, RNA, and Protein Synthesis**

Biology1

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| **Topic** | **Specific Learning Target** | **Checkpoint Score %** | **Test Score %** |
| 1. DNA History and Structure | A. I can identify the experiments and scientists involved in the discovery of DNA. |  |  |
| B. I can describe the structure of the DNA molecule. |
| 2. DNA Replication | C. I can identify the purpose of DNA replication. |  |  |
| D. I can identify and order the steps involved in DNA replication. |
| E. I can explain the purpose of molecules (enzymes) used in DNA replication. |
| 3. Protein Synthesis | F. I can describe the differences between DNA and RNA. |  |  |
| G. I can identify and order the steps involved in transcription |
| H. I can explain the purpose of molecules and cell structures used in transcription. |
| I. I can identify and order the steps involved in translation. |
| J. I can explain the purpose of molecules and cell structures used in translation. |
| K. I can use a codon chart to determine a protein sequence based on an mRNA code. |
| L. I can compare / contrast the different types of DNA mutations. |
| M. I can predict the effect of DNA mutations on the resulting protein. |
| 4. Biotechnology | N. I can describe the purpose and methods of gel electrophoresis and analyze electrophoresis results. |  |  |
| O. I can provide examples of the practical uses of biotechnology, including insulin production and cloning. |
| P. I can describe the purpose and methods of polymerase chain reaction (PCR). |